



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/624,541

07/23/2003

Moon-Gyu Lee

Q75286

7513

23373

7590

10/04/2005

SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/624,541

Applicant(s)

LEE ET AL.

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) 9-17 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8 and 19-21 is/are rejected.  
7) ☒ Claim(s) 18 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/12/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicants' amendment dated 07/06/2005 has been received and entered. By the amendment, claims 1-8 and newly added claims 18-21 are now pending in the application.

#### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 04/12/2005 was filed and considered by the examiner.
2. Applicant has stated that the Examiner has not initialed a copy of the PTO-1449 dated 03/18/2004; however, there is no copy of such PTO-1449 in application.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 19-20 recite a limitation of "the selective reflection panel is configured to reflect the light having an incident angle that is greater than 30°" and "the holographic pattern is formed

Art Unit: 2871

at the upper surface of the lower substrate” that was not described in the original specification and/or drawings.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 and 4-5 are rejected under 35 U.S.C 102(e) as being anticipated by

Yamamura, US Patent Application Publication No. 2003/0067565.

The above claims are anticipated by Yamamura’s figure 3 and accompanying text which disclose a liquid crystal display (LCD) device comprising:

- . a lower substrate (112) having a microstructure (reflective dots 160);
- . a light source (170);
- . a selective reflection panel and a polarization panel (color filter 114, polarizing plate 15, see page 2, [0033]);
- . a reflection panel (190).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2871

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura, US

Patent Application Publication No. 2003/0067565.

Regarding claim 3, Yamamura discloses the claimed invention as described above except for the position of the polarization plate being disposed between the microstructure and the reflection panel. It would have been obvious to one skilled in the art at the time of the invention was made to dispose a polarization plate between a microstructure and a reflector instead of above the microstructure, since it has been held that rearranging parts of an invention involves only routine skill in the art for the purposes of utilizing polarized light for a display.

9. Claims 6-8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yamamura, US Patent Application Publication No. 2003/0067565, in view of Ochiai, US Patent 6,196,691.

Regarding claims 6-8 and 21, Yamamura discloses the claimed invention as described above except for a holographic pattern having a diffraction grating with interval of not greater than  $2\mu\text{m}$ . Ochiai does disclose a holographic pattern as a microstructure forming in the rear of the light guide plate and having a diffraction grating with the interval (grating constant) of 0.1 to  $10\mu\text{m}$  (see col. 7, lines 38-45). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ a holographic pattern with a interval grating of less than  $2\mu\text{m}$  as shown by Ochiai in order to obtain a uniform, high-brightness light guide plate (col. 4, ln. 62).

Art Unit: 2871

***Allowable Subject Matter***

10. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Note: claims 19-20 are not rejected or indicated allowable since such claims recited the new subjected matter as noted above.

***Response to Arguments***

11. Applicant's arguments filed 07/06/2005 have been fully considered but they are not persuasive.

Regarding claim 1, in response to Applicants' argument that Yamamura does not disclose or suggest the claimed selective reflection panel that reflects light having a predetermined incident angle or greater, Applicants' are directed to paragraph [0033] (page2) which disclose "a lower polarizing plate 150 for transmitting light beams ... in a predetermined direction" (i.e., reflect the remaining light in a predetermined direction). It should also be noted that feature of "predetermined direction" and "predetermined angle" would be the same as well (since the light direction would be made a corresponding angle with respect to the surface where reflected/transmitted)

Accordingly, the rejection of the above claims stand.

Art Unit: 2871

*Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

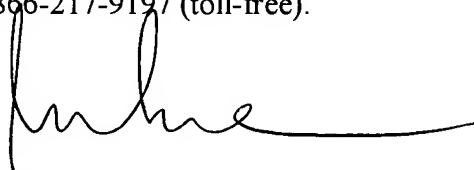
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN  
10/03/2005



***Dung Nguyen***  
***Primary Examiner***  
***Art Unit 2871***